GOVERNMENT OF INDIA
ENVIRONMENT, FORESTS AND CLIMATE CHANGE
LOK SABHA

UNSTARRED QUESTION NO:1552
ANSWERED ON:26.07.2016
Gangotri Glacier
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Will the Minister of ENVIRONMENT, FORESTS AND CLIMATE CHANGE be pleased to state:

(a) whether it is a fact that the retreat of Gangotri glacier is one of the main cause of lowering the water level of river Ganga;
(b) if so, whether the Government has any study report on the glaciers retreating therefor and if so, the details thereof; and
(c) the action plan of the Government to stop the imbalance of formation of ice and the melting rate of glaciers in the Himalayan region?

Answer

MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE

(SHRI ANIL MADHAV DAVE)

(a) According to National Institute of Hydrology, retreat of Gangotri glacier will not have drastic influence on the flow of river Ganga. The latter is not totally dependent on glaciers for its water even in the head-waters region. The percentage of snow and glacier-fed contribution progressively reduces as one moves downstream. Rainwater and sub-surface flows contribute more than 70% of the flow of river Ganga at Haridwar.

(b) In a collaborative project with Ministry of Environment, Forest & Climate Change (MoEF&CC), Indian Space Research Organisation (ISRO) has carried out mapping of Himalayan glaciers using Indian satellite data during 2004 to 2007. The study shows that there are 34,919 glaciers spread over 75,779 sq. km. in Indus, Ganga and Brahmaputra basins covering Himalaya and Trans-Himalaya including Karakoram region. Further, ISRO has monitored the glacier advance and retreat of 2018 glaciers, across the Himalayan region using satellite data of 2000-01 to 2010-11. The study shows that 87% of glaciers showed no change, 12% glaciers retreated and 1% glaciers have advanced. Himalayan glaciers are being further monitored as part of a new project entitled "Integrated Studies of Himalayan Cryosphere using Space based inputs and Impact Assessment due to Climate Change" funded by the Department of Space.

(c)The National Mission for Sustaining the Himalayan Ecosystem (NMSHE) under National Action Plan on Climate Change (NAPCC) encompasses conservation measures for sustaining and safeguarding the Himalayan glaciers and mountain ecosystems through establishment of monitoring network, promotion of community based management, human resource development, and strengthening regional cooperation. Major initiatives taken under NMSHE include creation of four Thematic Task Forces on Himalayan Agriculture, Traditional Knowledge systems, Forest Resources and Plant Diversity, and Fauna and Wildlife Habitats. Also, State Climate Change Centres have been set up in the seven Himalayan states, namely, Jammu and Kashmir, Himachal Pradesh, Manipur, Mizoram, Tripura, Sikkim and Meghalaya.

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